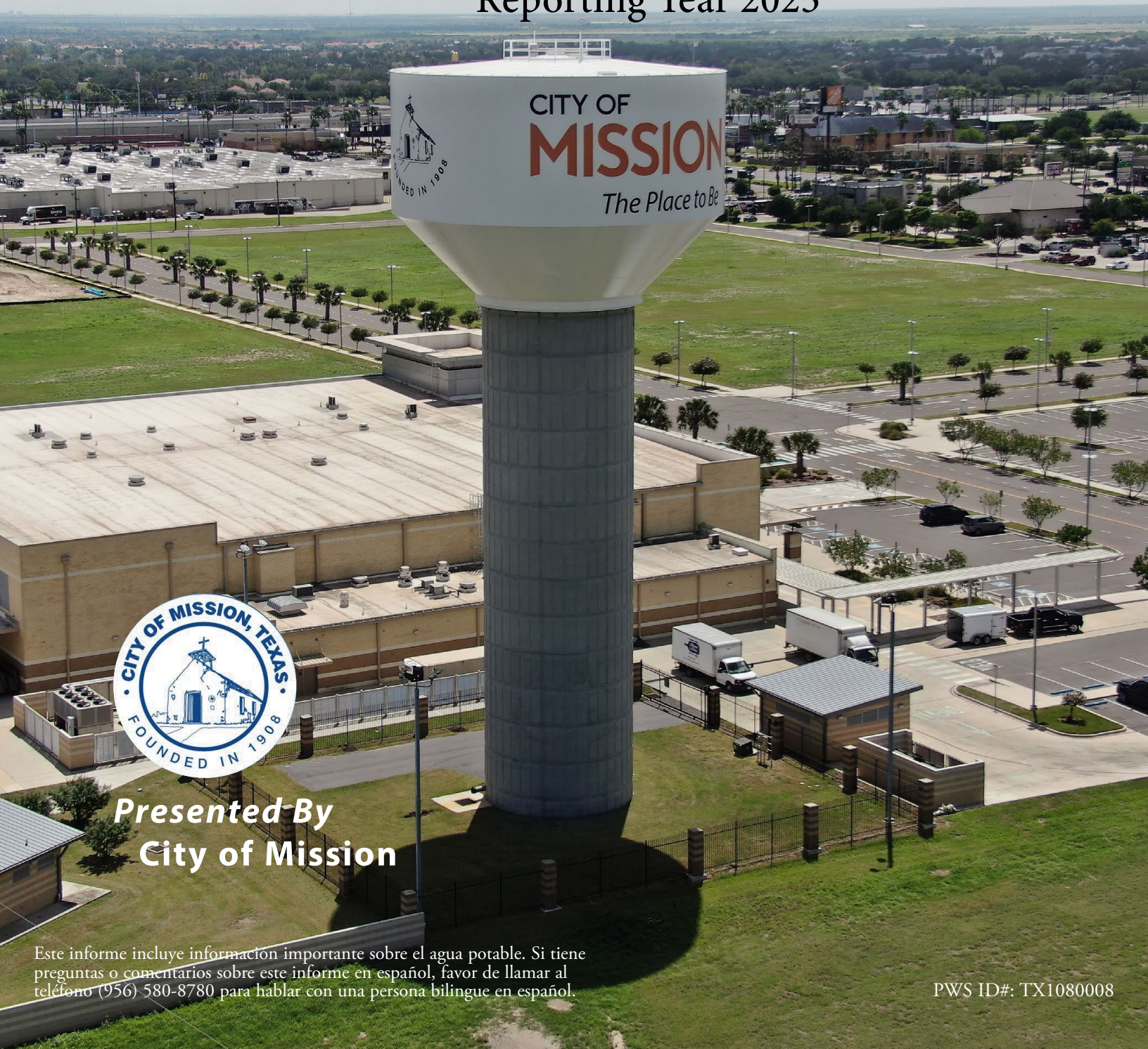
ANNUAL WATER QUALITY REPORT

Reporting Year 2023



CITY OF MISSION, TEXAS
FOUNDED IN 1908

Presented By
City of Mission

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al teléfono (956) 580-8780 para hablar con una persona bilingue en español.

PWS ID#: TX1080008

Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

Lead in Home Plumbing

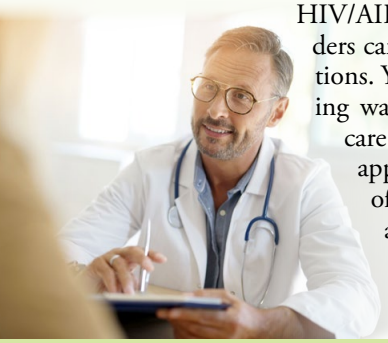
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or epa.gov/safewater/lead.

Emergency and Supplemental Water Sources

From January through May 2023, the City of McAllen's water treatment plant supplied water through the City of Mission's interconnect system during rehabilitation of the filter media and underdrain at the North Water Treatment Plant. To obtain a copy of the City of McAllen's Consumer Confidence Report, please contact McAllen Public Utilities at (965) 681-1600.

Important Health Information

You may be more vulnerable than the general population to certain microbial contaminants, such as *cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.



Water Conservation and Drought Contingency Plan

The City of Mission has implemented a Water Conservation and Drought Contingency Plan (WCDCP) to provide an adequate water supply to meet the future needs of our customers. The purpose of this plan is to establish procedures to identify, classify, and manage an effective and efficient water supply during high water demand or a water shortage emergency. Excessive demand on the water treatment plants or continually falling treated water reservoir levels, which do not refill overnight to a specific level, will trigger four stages of the water conservation plan. These stages range from Stage 1 (voluntary) to Stage 5 (water rationing). Utility customers in Stage 2 under our WCDCP are encouraged to limit their daily water usage by using good management practices for water conservation. Utility customers will be notified before any stage level change. At such time, customers may incur a surcharge fee based on water usage history for Stages 3, 4, and 5. Fines that may exceed $200 may be imposed for any violations of any stage of the water conservation plan, and, depending on the severity of the violation, the customer's water service may be terminated.

> **"When the well is dry, we know the worth of water."**
> *—Benjamin Franklin*

Community Participation

You are encouraged to visit missiontexas.us/news-events/ to participate in community events.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call J. P. Terrazas, Assistant City Manager, at (956) 580-8780.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Cryptosporidium in Drinking Water

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes *cryptosporidium*, the most commonly used filtration methods cannot guarantee 100-percent removal. Monitoring of source water indicates the presence of these organisms. On January 17, 2017, one *cryptosporidium* oocyst was reported from our North raw water intake, supplied by an irrigation canal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks; however, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Where Does My Water Come From?

The City of Mission water system consists of two water treatment plants: the South Water Treatment Plant (8.0 million gallons per day) and the North Water Treatment Plant (17.5 million gallons per day). Our raw water source is the Rio Grande, and the raw water is delivered from the river to reservoirs via irrigation canals. Combined, our water treatment facilities can produce 25.5 million gallons per day of clean drinking water.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set (unless a TOC violation is noted in the Violation column).

COLIFORM BACTERIA					
MAXIMUM CONTAMINANT LEVEL GOAL	TOTAL COLIFORM MAXIMUM CONTAMINANT LEVEL	HIGHEST NO. OF POSITIVE	FECAL COLIFORM OR E. COLI MAXIMUM CONTAMINANT LEVEL	TOTAL NO. OF POSITIVE E. COLI OR FECAL COLIFORM SAMPLES	VIOLATION	LIKELY SOURCE OF CONTAMINATION
0	5% of monthly samples are positive.	1.1	0	0	N	Naturally present in the environment.

LEAD AND COPPER	DATE SAMPLED	MCLG	ACTION LEVEL (AL)	90TH PERCENTILE	# SITES OVER AL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Copper	2023	1.3	1.3	0.112	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

2023 Water Quality Test Results

DISINFECTION BY-PRODUCTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF INDIVIDUAL SAMPLES	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Chlorite	2023	1.1	0.096 - 1.1	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2023	20	11.7 - 23.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

Total Trihalomethanes (TTHM)	2023	48	25.6 - 51.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

*The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

INORGANIC CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF INDIVIDUAL SAMPLES	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Barium	2023	0.0957	0.0874 - 0.0957	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2023	100	10 - 100	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2023	0.5	0.52 - 0.54	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2023	0.41	0.12 - 0.41	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

RADIOACTIVE CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF INDIVIDUAL SAMPLES	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Beta/photon emitters	2023	6.3	6.3 - 6.3	0	50	pCi/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

DISINFECTANT RESIDUAL

DISINFECTANT RESIDUAL	YEAR	AVERAGE LEVEL	RANGE OF LEVELS DETECTED	MRDL	MRDLG	UNIT OF MEASURE	VIOLATION (Y/N)	SOURCE IN DRINKING WATER
Chloramines	2023	2.8	0.54 - 4.1	4	4	ppm	No	Water additive used to control microbes.

(DLQOR).

	LEVEL DETECTED	LIMIT (TREATMENT TECHNIQUE)	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Highest single measurement	0.29 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	N	Soil runoff.

Turbidity

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

We also received these two violations that have been explain to an oversite in payment sample were collected and tested lab was paid late.

MONITORING, ROUTINE (DBP), MAJOR	DBP2	DBP PHASE 2
MONITORING, ROUTINE MAJOR	SOC5	SYNTHETIC ORGANICS

Source Water Assessment

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Mr. J. P. Terrazas, Assistant City Manager, at (956)-580-8780.

SOURCE WATER NAME TYPE OF WATER REPORT	STATUS	LOCATION	SUSCEPTIBILITY
Mission City Reservoir SW	Active	4th Street and 514 Perkins Ave.	High
North Plant Reservoir SW	Active	2801 N. Holland Ave.	High

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 10.3 percent or 521.686 million gallons of water. If you have any questions about the water loss audit, please call (956) 585-3275.

About Our Violation

As a result of an administrative oversight in spring 2023, we neglected to submit a financial transaction as required by the National Primary Drinking Water Regulations. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. To ensure that all reporting requirements are met in the future, we have implemented a computerized scheduling system that will automatically notify us when financial transactions are due to be submitted.

Tips to Prevent Stormwater Pollution

1. Remember to turn off your sprinklers when it rains to avoid water runoff. During winter runoff can freeze, causing slippery conditions.

2. Bag your pets' waste. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drains and eventually into local water bodies.

3. Don't apply pesticides, fertilizers, or herbicides before it rains. Contrary to popular belief, the rain won't help these chemicals soak into the ground; it will only create polluted runoff into our local creeks.

4. Select native and adapted plants and grasses that are drought- and pest-resistant. Native plants require less water, fertilizers, and pesticides. Learn more about native and adapted plants at txsmartscape.com.

5. Reduce the amount of paved area and increase the amount of vegetated area in your yard.

6. If you change your car's oil, don't dump it on the ground or in the storm drain. Dispose of it properly at an oil recycling center.

7. Check your car, boat, or motorcycle for leaks. Clean up spilled fluids with an absorbent material. Don't rinse the spills into the storm drains.

8. Don't get rid of grass clippings and other yard waste by dumping it or sweeping it into the storm drain; this will deplete oxygen for aquatic life. Instead, compost your yard waste.

9. When washing your car at home, wash with only water or use biodegradable soap and wash it on a lawn or other unpaved surface. Better yet, take your car to a professional car wash.

10. Don't get rid of old or unused paint by throwing it down the storm drain. Dispose of paint and other household hazardous waste at recycling facilities.

11. Don't pump your pool water into the storm drain; pool chemicals can be hazardous to our creek habitats. Whenever possible, drain your pool into the sanitary sewer system, where the water can be treated.

12. Don't Mess with Texas! Throw litter away in a garbage can, not out your window. Recycle what you can!